

REMARKS

The Office action of October 18, 2006 has been received and its contents carefully considered.

The present Amendment revises independent claim 11 to recite that the surface interconnection entirely covers the portion of the second interconnection that is exposed through the second opening, and extends to the side surface of the bump. This is supported (for example) by Figure 2E of the application's drawings. The Amendment also adds new claims 25-28 to further protect the invention. Claim 25 depends from independent claim 11 and recites that the step of forming a surface interconnection comprises electroplating. This is supported (for example) by the passage at page 15, lines 1-7. New claim 26 also depends from claim 11, and recites that the surface interconnection has a substantially uniform thickness. This is supported (for example) by Figure 2E. New claims 27 and 28 are independent claims that are based on claim 11 as it stood before the present Amendment. Claim 27 also recites electroplating, and claim 28 also recites that the surface interconnection has a substantially uniform thickness.

The Office Action rejects independent claim 11 (along with dependent claim 12) for anticipation by US patent 5,949,135 to Washida et al (which will hereafter be called simply "Washida" for the sake of convenient discussion). For the reasons discussed below, however, it is respectfully submitted that the independent claims now pending in this application are patentable over Washida.

The Office Action draws attention to Washida's Figure 8 and characterizes Washida's element 2f as the "first internal interconnection" of claim 11. The Office Action also characterizes Washida's element 2d as the "second internal connection," and Washida's element 12 as the "surface interconnection." However, Washida's element 12 does not cover the entire region of Washida's bonding pad 2d that is exposed through an opening in Washida's insulating layers 10. Instead, Washida's element 12 is electrically connected to bonding pad 2d through

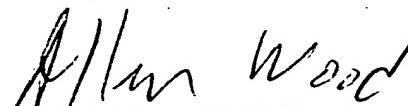
another conductive layer, 11a, which touches the bonding pad 2d only at its bottom end. Since claim 11 now provides that the surface interconnection entirely covers the portion of the second internal connection that is exposed through the second opening, and extends to the side surface of the bump, it is respectfully submitted that claim 11 is not anticipated by the reference. Nor would Washida have provided a motivation, for an ordinarily skilled person, to achieve the invention that is now defined by claim 11.

As was noted above, new independent claim 27 provides that the step of forming of surface interconnection comprises electroplating. As a result, the surface interconnection can have substantially uniform thickness within the second opening as well as on the surface protective film. Nothing in the reference would suggest that Washida uses electroplating to form his element 12. Nor does Washida's element 12 have a uniform thickness, in accordance with new independent claim 28.

The remaining claims depend from the independent claims discussed above and recite additional limitations to further define the invention, so they are patentable over the prior art without further consideration. The withdrawn claims should be re-joined and allowed along with the other claims.

For the foregoing reasons, it is respectfully submitted that this application is in condition for allowance. Reconsideration of the application is therefore respectfully requested.

Respectfully submitted,


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AMENDMENT

10/767,439